

We know now that organisms are classified into 7 levels. The kingdom level is the broadest and contains the largest number of organisms. All organisms are presently divided into 5 kingdoms - Monera, Protista, Fungi, Plantae, and Animalia.

This was not always the case.

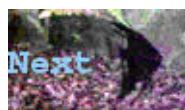
In Aristotle's time, remember that living things were classified as either plants or animals. This 2 kingdom classification system was also used by Linnaeus and other scientists through the middle of the twentieth century.

DISCUSSION QUESTION - Why did it take so long to move from a 2-kingdom to a 5-kingdom classification system (or why were all living things considered only plants or animals for so long...)?

Possible Answers: Microscopic organisms were not discovered or named until the microscope was invented (2 of the kingdoms consist of mainly microscopic organisms). Also, as knowledge of the structure, genetics, and evolution of organisms increased, more than just 2 very broad kingdoms became necessary.

Today, a 5-kingdom classification system is generally accepted. It was proposed by R. H. Whittaker in 1969. However, this may not be the end of the story. Some scientists have proposed that organisms be divided into even more (maybe as many as 8) kingdoms! Viruses are not included in any of the present 5 kingdoms - mainly due to their many nonliving characteristics (for example, viruses are not cells).

Bacteria may eventually be divided into more than just the one kingdom Monera because there are some very different groups of bacteria. Algae pose an entirely different problem. Earlier classification schemes classified algae as plants. However, current schemes include the unicellular algae within the kingdom Protista, while keeping the multicellular algae within the plant kingdom. Classification is a constantly changing, dynamic science! This means that you can still learn by discovery, not just memorization!



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